DEFENSE ACQUISITION UNIVERSITY

BCF 107 - Applied Cost Analysis

101026

Course Learning/Performance Objectives followed by its enabling learning objectives on separate lines if specified.

1	**Assess the impacts on the cost estimate due to changes in economic year, quantity, scope, schedule, engineering design, and estimating methodology.**
	Discuss and assess the impact of six major factors associated with changes in cost estimates.
	Determine the circumstances for the application of six different cost estimating methodologies.
	Describe and apply the adjustments necessary to revise the economic year of the estimate and perform the associated calculations.
2	**Apply non-statistical estimating techniques in scenario based problems.**
	Prepare an analogy estimate.
	Outline the process for conducting an expert interview.
	Construct and apply cost factors.
3	**Prepare graphical and numerical data analysis in Microsoft Excel.**
	Construct and interpret histograms and scatterplots from a data set.
	Formulate and interpret the descriptive statistics for a data set.
	Formulate and interpret the confidence interval for the mean.
4	**Prepare simple linear regression analysis in Microsoft Excel.**
	Analyze the appropriate function to fit a given data set using graphical analysis.
	Formulate and interpret simple linear regression statistics.
	Calculate an estimate using simple linear regression.
5	**Prepare nonlinear regression analysis in Microsoft Excel.**
	Determine the appropriate function to fit a given data set using graphical analysis.
	Formulate and interpret log-linear regression statistics.
	Calculate an estimate using nonlinear regression.
6	**Prepare nonlinear regression in Microsoft Excel to model the relationships between cost and quantity.**
	Use nonlinear regression to project the unit cost at different quantity levels in a quantity discount application.
	Develop the unit learning curve formula from a set of lot data.
	Apply the unit learning curve formula to determine the cost of a future lot.